

# A New Species of *Argiolestes* from New South Wales (Order Odonata)

By LT.-COL. F. C. FRASER, I.M.S., Retd.

*ARGIOLESTES CALCARIS*, n. sp.

Male. Abdomen 27.5 mm. (with appendages), Hindwing 23 mm.

Head: labrum dark blue metallic; epistome glossy black, yellow at its lower border; bases of mandibles and genae bright chrome yellow; rest of head matt black, including antennae; occiput projecting markedly as an angle just medial to border of eyes. Prothorax dull black with a large rounded spot on each side of the middle lobe, a smaller on each side of the posterior lobe, and the whole of the anterior lobe chrome yellow. Thorax black on dorsum rather heavily pruinosed, marked with a bright chrome yellow humeral stripe, the lower part anterior to the suture but crossing it at its middle to be continued along its posterior border but not quite attaining to its upper limit. Laterally black varied with chrome yellow—a broadly interrupted stripe on the mesepisternum extending on to coxae below and interrupted at the upper level of spiracle; a second irregular stripe on lower half of metepimeron which expands anteriorly and turns back along the lower border of the posterolateral suture, forming a hasp-shaped marking. Yellow beneath thorax but its centre black. Legs black, coxae and trochanters marked with yellow. Wings hyaline, pterostigma very dark ochreous framed in black, covering 2 cells, narrowly lozenge-shaped, acute at both ends; 13 to 15 post-nodals in forewings, 12 to 13 in the hindwings; petiolation of wings begins at level of base of discoidal cell but the anal vein distinctly confluent with the posterior border of wing to as far as *Ac*, which vein lies much nearer the level of the distal antenodal; *Riii* begins at the 5th postnodal in forewings, at the 4th in the hind. Abdomen black with the apical border of segment I chrome yellow and paired basal spots, broadly interrupted on the dorsum from segment 3 to 7. Anal appendages black; superiors nearly half as long again as segment 10, broad at base, slightly constricted at middle, directed straight back but apical fourth curled abruptly inwards; the inner border rather deeply excavate so that the basal portion forms a distinct angulation on the inner side; shortly before apex a strong thorn-like spine, similar to that found in *icteromelas* is directed ventrally and obliquely posteriorly. Inferior appendages rudimentary, not visible in profile.

Female. Abdomen 26-27 mm., Hindwing 26 mm.

Resembles the male generally in colour and markings; differs as follows: The anteclypeus more definitely carneous or reddish purple, a small oval yellow spot on each side of vertex between the ocelli and orbit, pterostigma larger and of a pale ochreous at its centre with the surround more or less enfumed, the nodal index a little higher, 16-17 postnodals in forewings and 14-16 in the hind (compared with 20-22 in the female of *icteromelas*); lastly the abdomen of the same length as the wings and of extraordinary robustness, much thicker than the larger species of the genus, this feature alone serving to separate the species from all others.

The black markings on the sides of thorax appear to be made up of three oblique stripes, the anterior and middle ones confluent at a point at level of spiracle, the middle and posterior ones broadly confluent at their upper halves.

Habitat: *New South Wales*: Mt. Kosciusko, 5,000 ft., 18. i. 54; 4 males and 3 females collected by Mr. Roderick Dobson. The general appearance of this new species resembles *Argiolestes griseus* Selys, and it is possible that it has actually been mistaken for this species, which, however, has no ventral spur near the apical end of the superior anal appendages. It differs from *A. icteromelas* Selys by its much smaller size (Abd. 27 mm. compared with 34-38 mm. in *icteromelas*), by the lower nodal index (13-15 compared with 18-20 in the males and 16-17 compared with 20-22 in the females), by the greater extent of the black markings on sides of thorax, by superior anal appendages relatively longer and less curved, by the marked pruinosity of the dorsum of thorax (quite absent or limited to the humeral stripes in *icteromelas*), and lastly by the great robustness of the female abdomen. The pterostigma of the female appears to retain its pale yellow colouring even in the adult stage, but this is lost in the female of *icteromelas*.

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## *Antipodogomphus neophytus*, a New Species of Dragonfly from Northwestern Australia

By LT.-COL. F. C. FRASER, I.M.S., Retd.

In a small collection of Odonata made by Dr. E. P. Hodgkin, of the University of Western Australia, I have found a new Gomphus belonging to the genus *Antipodogomphus* Fraser, bringing the number of species of the genus to three. In addition to this was a single female of *Orthetrum pruinosum migratum* Lieftinck, a rare species of which this sex was hitherto unknown. This species was first discovered by Dr. R. J. Tillyard, who sent a single male to Dr. F. Ris for his opinion; Dr. Ris remarked on its peculiarity as compared with *O. pruinosum pruinosum* (Burmeister), but said that he dared not name it in view of there being only a single example. Some forty years later M. A. Lieftinck redescribed the male and named it as a new subspecies from two males from North Australia. He pointed out quite a number of characters in which *migratum* differed from *pruinosum*, and these are so manifest that I personally would not confuse the two; therefore I prefer to regard it as a full species belonging to the group *pruinosum*. The description of the two insects follows:—

### ANTIPODOGOMPHUS NEOPHYTUS, n.sp.

Male. Abdomen 40 mm. Hindwing 30 mm. Pterostigma 3.5 mm.

Head: whole of lips, face, frons, and occiput pale yellow; vertex black but centred with yellow. Prothorax yellow with the dorsum of middle lobe and a spot on each side black. Synthorax black on dorsum marked with citron yellow, yellow on sides with sparse black markings as follows—middorsal carina finely yellow, antehumeral stripes elongated fusiform in shape which do not extend quite to the slightly interrupted mesothoracic collar, humeral stripes complete, markedly expanded at the upper, middle, and lower parts and obviously made up by the confluence of the three spots found in the related species *acolytus* and *proselytus*; laterally a very narrow widely interrupted black stripe on the first lateral suture, broken at level of spiracle, and a similar linear stripe on the whole of the second lateral suture. Legs sandy yellow, the femora striped in their length with black, the hind with a stripe on the extensor surface and one on each side, the other two pairs with a short linear black spot on the outer side